CITY OF
SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Rob Lloyd

SUBJECT: INNOVATION AND TECHNOLOGY BLUEPRINT STAFFING COSTS

DATE: May 8, 2019

Approved ~~Jennifer A. Maguire~~   Date 5·8-19

BACKGROUND

At the April 4, 2019, Smart Cities and Service Improvements Committee meeting, the Committee directed staff to submit a Manager's Budget Addendum (MBA) memorandum detailing staffing required to complete the staffing blueprint in the City's 2017-2019 Innovation and Technology Strategic Plan. This memo includes detail for 14 new ongoing positions and two reallocated positions in the Information Technology Department (ITD). Those additions and modifications would add the business and technical capacities defined in the plan. Two new and two reallocated positions from the plan are already included in the 2019-2020 Proposed Operating Budget.

This MBA describes the 12 new positions that remain unfunded and details the roles those positions would have in the Information Technology Department (ITD), in support of current and emerging service needs in the City organization. While only two new positions and two reallocated positions have been included in the 2019-2020 Proposed Budget, the Administration recognizes the importance of the additional 12 positions. Due to the City's General Fund position with shortfalls forecasted over the next several years and the City Council's direction through approval of the Mayor's March Budget Message that the majority of the $5.1 million surplus be directed to help reduce a portion of the projected 2020-2021 shortfall, the additional positions could not be added at this time.

ANALYSIS

City Council approved the Innovation and Technology Strategic Plan for 2017-2019 on March 38, 2017[1]. Detailed in that plan was a portfolio of "Tech Debt" carried by the City organization in the form of obsolete and end-of-life software and systems, as well as missing technology staff capacities resulting from a decade of budget deficits. Mounting audit comments, examples where City technology projects failed to deliver outcomes, and employee frustrations stemming from

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[1] IT Strategic Plan Presentation to City Council:
https://sanjose.granicus.com/MetaViewer.php?view_id=&clip_id=9630&meta_id=625873

daily use of decayed technologies, all painted a clear picture: Tech Debt inhibits the City's ability to innovate at a time when service transformation would be essential to the ambitions of City Council and City departments.

The March 8, 2019, Mayor's March Budget Message for Fiscal Year 2019-2020 noted that after years of underfunding technology needs, the last two years have focused on confronting tens of millions of dollars in Tech Debt. Indeed, the City has made significant strides in the areas of bringing coherence to mismatched and siloed software platforms, cybersecurity, project execution, City Contact Center operations, and heavy support demands from legacy software and systems. At the April 4, 2019, Smart Cities and Service Improvements Committee meeting, Committee members commended the positive results achieved by the City between late-2016 and early-2019:

- Customer Satisfaction increased from 74% to 89% "Good" to "Excellent"
- Project Success rates increased from <5% to 78%
- IT Uptime and Availability increased from 99.1% to 99.6%
- IT Employee Engagement improved from the 8th percentile to the 29th percentile in the Gallup Survey
- Expired Hardware decreased from 71% to 51%
- IT Position Vacancies decreased from an average of ~36% to ~14%

Heading forward, the Mayor's Budget Message and the Smart Cities Committee noted a want to build on the progress the City has achieved, including directing staff to submit a memo regarding the resources it would take to complete the organizational blueprint defined in the IT Strategic Plan. Those staff capacities specifically address technical, architecture, and management needs in three areas: planning/building responsive solutions for employees and residents; product-project execution; and optimizing an increasingly complex portfolio of technology solutions and vendors used across the City organization. This MBA describes and prioritizes those capacities based on impact, as directed.
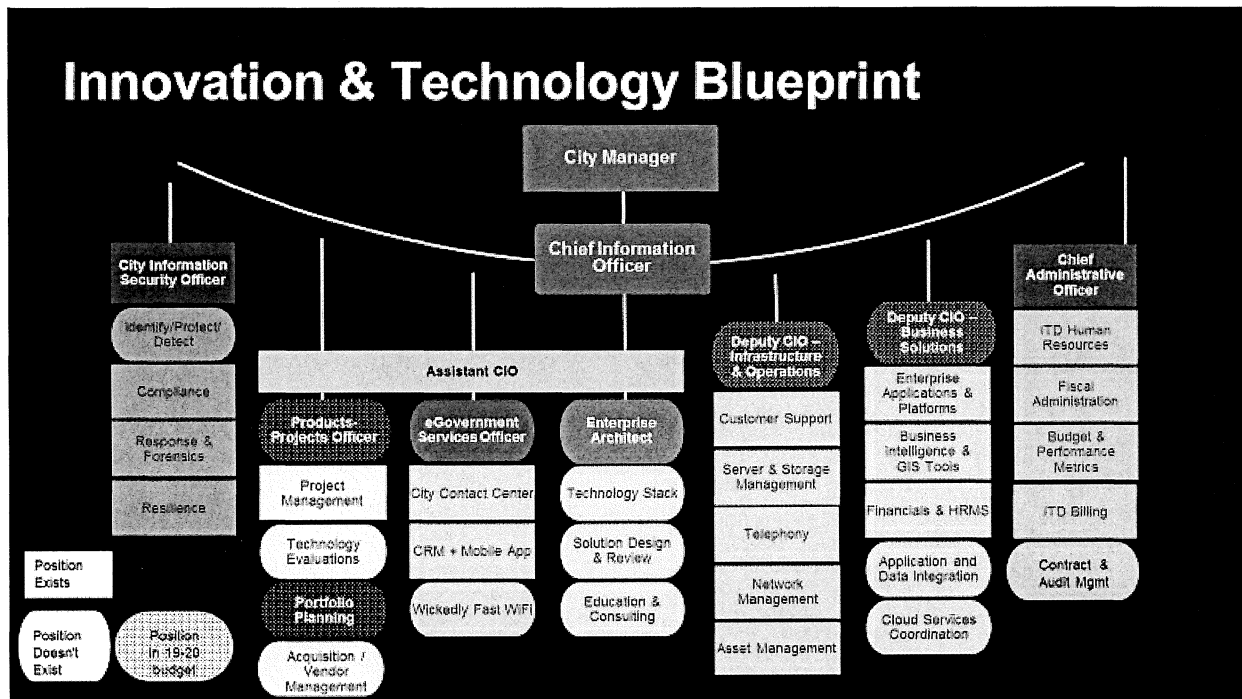
The 2019-2020 Proposed Operating Budget includes 2.0 ongoing positions aimed at strengthening the City's IT Products-Projects Management service area, which has shown value in delivering on the technology investments assigned to it by the City. The current work queue for the division includes the Business Tax Amnesty System; My San Jose 2.0; Business Process Automation (digitization of paper processes); stand-up of technology for the new Arcadia Ballpark; and scope and procurement of the new Business Tax System. In addition to these ongoing resources, the 2019-2020 Proposed Operating Budget also includes the one-time addition of 3.0 project-specific positions to support the Integrated Permitting System and technology connected to the opening operations of two regional parks facilities (Arcadia Ballpark and Happy Hollow Park and Zoo).

In addition, to more effectively support the Cybersecurity function, the addition of 1.0 Enterprise Supervising Technology Analyst (ESTA), offset by the deletion of 1.0 Enterprise Information Technology Engineer II, is recommended in the 2019-2020 Proposed Operating Budget. The Proposed Operating Budget also includes upgrading 2.0 senior management positions in Infrastructure & Operations and Business Solutions divisions to provide strategic-level leadership in how the City plans and structures city-wide IT services, skills, and resource management. This will move the City past the back-office approaches of old.

The enterprise technology staffing needed serves to continue ITD's transition toward supporting iterative service improvements and innovation. The following tables provide prioritized tiers of staffing investments to account for the fact that growth should happen incrementally, in order to sustain changes to work processes and culture. The 12.0 positions included in the prioritized tiers are in ranked order and based on the timing of when specific skillsets are most needed to support departmental needs, the Smart Cities Roadmap, and the Small Wonders program. This

tiering offers a balanced approach to adding necessary leadership and delivery staff in each domain area of The Technology and Innovation Organizational Blueprint.

Five positions included in the category of Priority 1 begin transitioning ITD from addressing remaining Tech Debt and vulnerabilities to increasing focus on transformative efforts and the Enabling Technologies in the IT Strategic Plan. The total investment for the Priority 1 is approximately $1.1 million ongoing. The positions integrate our focus on reducing cybersecurity risks, supporting coordinated enterprise resources across City departments, strengthening an enterprise view of our technology footprint, and improving contract and vendor management. ITD would also move into business process reengineering and digital services, which are needed for replacement of current large-scale priorities such as Business Tax, Integrated Permitting System, and Business Process Automation.

Innovation & Technology Strategic Plan Organization Blueprint – Unfunded Positions, Priority 1

Position Working Title / Classification	Functional Role	Approximate Annual Salary / Benefits Cost
Enterprise Architect – Enterprise Technology Manager (ETM)	Lead the design, planning, and coordinated adoption of technical and operational models; ensure interoperable, high-performing, and cost-optimized IT services; maintain the IT blueprint to guide future decisions on service builds	$244,000
Cybersecurity Analyst – Enterprise Supervising Technology Analyst (ESTA)	Proactively manage asset security, adherence to security policies, cybersecurity procedures and updates, and manage monitoring systems	$214,000
Portfolio Planning (business analysis) – ESTA	Perform business analysis and business process re-engineering; analyze value and risks for prioritization; manages projects queue ensure alignment with City Manager's Enterprise Priorities and Council direction	$214,000
Contract and Audit Mgmt – Senior Analyst	Lead IT contract and audit management to coordinate the City's growing portfolio of vendors and solutions; perform professional analyses in support of finance, recruitment, and cost optimization	$175,000
eGovernment Services Officer –Enterprise Principal Technology Analyst (EPTA)	Oversee programs for the City's customer-touch technologies, including My San Jose, web services, and 3-1-1 / City Customer Contact Center; administer online applications and transaction services used by City departments	$233,000
Subtotal of Priority 1 Positions		**$1,080,000**

Seven positions included in the category of Priority 2 expand upon our approach to create enterprise architectural frameworks/standards to grow cross-department interoperability and data integration. These are necessary tactics for Artificial Intelligence, Internet of Things platforms and location-aware services to be successful. The total unfunded cost for this tier is approximately $1.5 million ongoing.

Innovation & Technology Strategic Plan Organization Blueprint – Unfunded Positions, Priority 2

Position Working Title / Classification	Functional Role	Approximate Annual Salary / Benefits Cost
Applications and Data Integration – ESTA	Manage processes/architectures to combine use and processing across the City's growing number of online application, data, and transaction systems; support integrated data platforms and champions integration standards	$214,000
Cloud Services Coordination - ESTA	Plan and engineer the City's use of multiple cloud computing infrastructure and applications solutions as departmental use proliferates; oversee disengagement and transition of cloud/as-a-service solutions	$214,000
Technology Stack (aka Infrastructure Architect) – EPTA	Work with departments to implement and support use of enterprise infrastructure resources; build interoperable systems; free department-assigned IT staff to focus on high-value business applications and service improvements versus redundant infrastructure	$233,000
Solution and Design Review Architect – EPTA	Work on procurements and upgrades to ensure City systems apply City architectures for applications, data, cybersecurity, and infrastructure; ensure interoperability of systems	$233,000
Education and Consulting (aka Business Architect) – ESTA	Work with departments to design and maintain technology blueprints, inventories of capabilities, and maps of staff skills to support City services; ensure interoperable systems; support departmental use of strong technology policies, standards, and processes	$214,000
Wickedly Fast WiFi – Enterprise Information Technology Engineer	Collaborate with Civic Innovation and departments to support the organizational use, economic development, and digital inclusion goals through the City's wireless infrastructure assets; maintain and report on services use and performance	$196,000

Products / Projects Manager (vendor mgmt.) – ESTA	Lead roll-out of new products and features to ensure positive release experience for customers and staffs; work with HR on learning management practices; develop and update education materials for employees	$214,000
Subtotal of Priority 2 Positions		**$1,518,000**

COORDINATION

This memorandum was coordinated with the City Manager's Budget Office and the Office of Civic Innovation.

/s/
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